

REMARKS

Reconsideration and withdrawal of the outstanding ground of rejection is respectfully requested in light of the above proposed amendments and the remarks which follow.

The Examiner has rejected claim 18 under 35 U.S.C. 112, second paragraph. The Examiner correctly notes the omission of a value for the dielectric strength. Applicant has amended claim 18 to add the dielectric strength value consistent with the values already recited in independent claims 1 and 9.

The Examiner has rejected claims 1-9 and 18 under 35 U.S.C. 103 as unpatentable over Prostor in view of the Japan '606 reference. According to the Examiner, Prostor discloses the instant claimed invention except for the powder resins specifically having a dielectric strength as claimed. The Japan '606 reference is cited for disclosing a coil formed of a silicone powder resin having a "high" dielectric strength. According to the Examiner, it would have been obvious to one of ordinary skill in the art to use the coating composition in the Japan '606 reference as a substitute for the coating in Prostor for the purpose of enabling the coil to withstand the operating environment of a field coil.

In Prostor, it is readily apparent that only one side of each layer of the coil is coated. In contrast, the independent claims of this invention as amended require each layer to be substantially entirely coated with a powder resin, i.e., coated on all four sides (top, bottom and two side edges) and, as explained in the previous response, the term "substantially" here is intended to merely exclude the possibility that ends of the copper bars may be masked to prevent powder coverage where not desired, for example, at the

site of the electrical connections. The benefit of the present arrangement, where substantially the entire layer (all sides of the layer) is coated is that the coating is far more robust mechanically, chemically and hydralitically.

As to the secondary reference, Japan '606, the Examiner merely assumes that a reference to enhanced dielectric strength provides evidence of obviousness with respect to the requirement in claims 1, 9 and 18 that the coating in applicant's invention have a dielectric strength of at least 1000 v/mil. The Examiner's conclusion, however, is not based on any facts that be deduced from the reference document itself, and moreover, the Examiner has not demonstrated that the Japan reference disclosure of enhanced dielectric strength is in fact superior to the dielectric strength associated with Prostor's coating. In other words, on its face, there is no basis for the combination. Accordingly, it is readily apparent that the references as cited and applied by the Examiner do not disclose the specific structure required by the claims (where the various layers are substantially entirely coated with a powder resin), nor do they disclose the recited the properties of the applied coating (dielectric strength of at least 1000 v/mil) and, therefore, the combination of references is clearly insufficient to establish prima facie obviousness with respect to any of the rejected claims.

On this basis, reconsideration and withdrawal of the outstanding ground of rejection is requested. In this regard, since the proposed amendment places the application in condition for allowance, entry pursuant to 37 CFR 1.116(b) is in order.

C

IRWIN et al.
Serial No. 09/552,310

Should any small matters remain outstanding, the Examiner is encouraged to telephone the undersigned so that the prosecution of this application can be expeditiously concluded.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page(s) is captioned "**Version With Markings To Show Changes Made.**"

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: 

Michael J. Keenan
Reg. No. 32,106

MJK:ljb
1100 North Glebe Road, 8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Amend claims 1, 4, 5, 9 and 18 as follows:

1. (Amended) A field coil for an electromagnetic rotor comprising multiple [windings] layers, said [windings] layers each substantially entirely coated with a powder resin having a dielectric strength of at least 1000 v/mil, and a thermal stability above 155° C.

4. (Amended) The field coil of claim 1 wherein said field coil comprises a single helically wound member[, having multiple layers, each layer coated on opposite sides with said powder resin].

5. (Amended) The field coil of claim 1 wherein [said field coil] each layer comprises [plural layers of] a discrete winding [coil members, each member being coated on opposite sides with said powder resin].

9. (Amended) A field coil for an electromagnetic rotor comprising [a field coil] multiple layers, said layers each substantially entirely coated with a powder resin selected from a group consisting essentially of epoxy powder resins and silicone powder resins, wherein said powder resin has a dielectric strength of at least 1000 v/mil and thermal stability above 155° C.

18. (Amended) A copper field coil for an electromagnetic rotor comprising [helical windings] helically wound layers, each layer substantially entirely coated with insulation comprising a powder resin having a dielectric strength of at least 1000 v/mil, and a thermal stability about 155°C.